

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference CL2466PCT	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2005/003988	International filing date (day/month/year) 04/02/2005	(Earliest) Priority Date (day/month/year) 04/02/2004
Applicant E. I. DUPONT DE NEMOURS AND COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

NQR RF COIL ASSEMBLY COMPRISING TWO OR MORE COILS WHICH MAY BE MADE FROM HTS

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2005/003988

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The use of two or more sensors tuned to the same nuclear quadrupole resonance frequency and detecting the nuclear quadrupole resonance signal results in improved signal-to-noise ratio and therefore improved nuclear quadrupole resonance detection system performance. To further improve the SNR, the sensors may be made from a high temperature superconductor (HTS).

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2005/003988

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G01R33/3415 G01R33/44

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G01R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, COMPENDEX, INSPEC, FSTA, BIOSIS, EMBASE, MEDLINE, IBM-TDB

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 289 344 A (* BRITISH TECHNOLOGY GROUP LIMITED) 15 November 1995 (1995-11-15)  page 1, lines 8-11 page 3, lines 19-21 page 9, lines 9,10 page 14, line 1 - page 18, line 21 figures 1,4	1,6,9, 10,16, 17,23
X	WO 99/45409 A (BTG INTERNATIONAL LTD; ROWE, MICHAEL, DAVID; SMITH, JOHN, ALEC, SYDNEY) 10 September 1999 (1999-09-10) page 1, lines 4-6 page 20, line 3 - page 24, line 23 page 33, line 30 - page 36, line 3 figure 6  ----- -/--	1-3,5,6, 9-13, 16-20,23



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\* & \* document member of the same patent family

Date of the actual completion of the international search

17 October 2005

Date of mailing of the international search report

28/10/2005

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 426 851 A (HITACHI, LTD) 15 May 1991 (1991-05-15)  column 1, lines 3-13 column 11, line 9 - column 12, line 24 figures 7,8  -----	1,6,9, 10,16, 17,23
X	US 6 150 816 A (SRINIVASAN ET AL) 21 November 2000 (2000-11-21)  column 1, lines 9-13 column 2, lines 15-59 column 11, line 34 - column 13, line 16 column 16, lines 1-47 figures 13a,13b  -----	1,4,6,9, 10,14, 16,17, 21,23
X	WO 03/096041 A (QRSCIENCES TECHNOLOGIES PTY LTD; RUDAKOV, TARAS, NIKOLAEVITCH; MIKHALT) 20 November 2003 (2003-11-20) page 1, lines 5-15 page 10, line 23 - page 19, line 21 figures 1-4,6,6a,8  -----	1,6,9, 10,16, 17,23
X	WO 00/70356 A (INTERMAGNETICS GENERAL CORPORATION) 23 November 2000 (2000-11-23)  page 2, line 11 - page 6, line 24 page 7, line 21 - page 14, line 14  -----	1-6, 10-14, 17-21
X	WO 98/54590 A (THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE S) 3 December 1998 (1998-12-03) page 1, lines 12-22 page 7, lines 3-28 figures 1-3  -----	1,6-8, 10,15, 17,22
P,X	WILKER C ET AL: "HTS sensors for NQR spectroscopy" MICROWAVE SYMPOSIUM DIGEST, 2004 IEEE MTT-S INTERNATIONAL FORT WORTH, TX, USA JUNE 6-11, 2004, PISCATAWAY, NJ, USA,IEEE, vol. 1, 6 June 2004 (2004-06-06), pages 143-146, XP010727243 ISBN: 0-7803-8331-1 the whole document  -----	1-6, 9-14, 16-21,23
P,X	US 2004/222790 A1 (KARMI YAIR ET AL) 11 November 2004 (2004-11-11)  paragraph '0001! - paragraph '0006! paragraph '0053! figure 5  -----	1,6,9, 10,16, 17,23

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2289344	A	15-11-1995	NONE	
WO 9945409	A	10-09-1999	AU 3267999 A CA 2322500 A1 EP 1060404 A1	20-09-1999 10-09-1999 20-12-2000
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US 6150816	A	21-11-2000	NONE	
WO 03096041	A	20-11-2003	US 2005146331 A1	07-07-2005
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WO 9854590	A	03-12-1998	AU 752526 B2 AU 7691598 A CA 2290626 A1 EP 1015906 A1 JP 2002500539 T	19-09-2002 30-12-1998 03-12-1998 05-07-2000 08-01-2002
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